

Remarks

This Supplemental Preliminary Amendment is presented in light of the discussion during the interview with the Examiner on March 9, 2006 at the U.S. Patent Office with Kenneth L. Nash and C. James Bushman.

Applicant initially wishes to thank the Examiner for his courtesy in rearranging his schedule for the interview while Applicant's attorneys were in Washington, and in being willing to change his schedule to accommodate an earlier interview time.

During the interview, the Examiner reviewed the claims and requested that amendments be made to the claims to remove potential ambiguities in phrases such "one or more" and "related to." Therefore, global changes were made to remove these phrases.

The operation of the invention was discussed and Applicant's attorneys pointed out that Applicant was the first to solve a serious environmental problem that had existed for decades. The Examiner indicated that more detail should be provided concerning the environmental equipment and the sensors to detect abnormal operating conditions of the environmental equipment. The Examiner also indicated that additional detail should be provided in the claims regarding occurrences in method steps after detection of abnormal operating conditions. As well, the Examiner indicated that more detail concerning sensors for detecting the physical presence of service personnel should be made, and in the steps after the physical presence is detected. Applicants respectfully believe that this has been accomplished in the attached amendments.

The Applicant's attorneys greatly appreciate the Examiner's help in proposing claim language and in clarifying the nature of the invention.

Applicant's attorneys also discussed the fact that environment regulators have been

troubled for decades because there has not been a workable solution for determining whether the large numbers of widely spread environmental treatment systems have actually been serviced, even though service personnel submit documentation indicating that such services had been performed, such as by using the cited Carmody system. Significant environmental problems can occur if routine service is not actually made. Therefore, regulators have been highly interested and impressed with Applicant's invention which at last permits a small number of regulators to inexpensively verify in a practical way that service personnel have actually been to the large number of different locations. Applicant's solution is so cost effective and helpful to regulators that even the NSF, which certifies environmental equipment, has licensed Applicant's system.

As well, Applicant's attorneys noted that Carmody does not show any sensors, and does not even appreciate the problem. Because of the length of time that the serious problem existed without a solution, despite attempts by experts to solve the problem, and because of the immediate acceptance of Applicant's solution by those of high skill in the industry as represented by the NSF, Applicant's attorneys earnestly request consideration of the amended claims presented herein.

The above discussion during the interview essentially summarized much of the more detailed discussion below that is also provided in the initial preliminary amendment, and which is essentially repeated hereinafter.

Claim Rejections - 35 U.S.C. 112

Claims 75-88 are rejected under 35 U.S.C. 112 as failing to comply with the written description, which requires that one of skill in the art be able to make and use the invention.

Specifically, the Examiner objected to Applicant's statement that the sensors are "permanently" mounted. Applicant has deleted the term.

Claim Rejections - 35 U.S.C. 103(a)

Claims 1-7, 9, 12-18, 20-22, 24-35, 35-47, 49-56, 58-63, 61-83 and 85-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carmody (US 2002/0143596) in view of Witts et al. (US 4,401,994).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carmody in view of Witts and further in view of Jurca (US 4,949,263).

Claims 10-11, 19, 23, 36, 48, 57, 64, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carmody in view of Witts and further in view of Kahleck et al. (US 5,673,190).

I. Previous Arguments by Applicant To Which the Examiner HAS Responded:

1. Applicant argued that Carmody does not teach electronic sensors to monitor operational status or personnel presence. The present Office Action states that Witts "is applied for this feature." (page 20, mid-page)

Clearly Witts does not teach any sensors used for monitoring operational status of a wastewater treatment system or any other system. Witts only monitors entry and exit of employees. Therefore, Applicant now specifies in claim 1 "first sensors" for detecting operational

status of the wastewater treatment systems. Similar requirements were already specified in independent claims 20, 27, 39, 49, 58, 65, and 75. Plainly, neither Carmody nor Witts teach sensors that monitor operational status of a wastewater treatment system.

2. Applicant argued that Witts is nonanalogous art. The Office Action states that Witts' device is reasonably pertinent to the problem of recording the physical presence of service personnel at the monitored location. The Office Action cites *In re Oetiker*, 977 F. 2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992) for support. (page 24, middle paragraph)

In re Oetiker concerned whether a garment hook for use with a hose clamp is obvious, wherein the Examiner and the Board had argued the garment hook relates to a hooking problem. The Federal Circuit disagreed. "The Board apparently reasoned that all hooking problems are analogous." The Federal Circuit found that a garment hook was nonanalogous art because one of skill in the art of hose clamps would not have been motivated to look at garment hooks.

We have reminded ourselves and the PTO that it is necessary to consider "the reality of the circumstances", *In re Wood*, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979)--in other words, common sense--in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor.... There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge cannot come from the applicant's invention itself. (Emphasis added).

Witts does not teach a system that monitors not only the employee but also the employer who might wish to pocket inspection costs by not sending an employee to perform required maintenance inspections to a large number of different locations on infrequent occasions for relatively short times. Witts is intended to monitor a large number of employees working for a single employer at a single location. On the other hand, Applicant's device monitors the presence

of a single employee at a multitude of different physical locations as per the amended claims (For support of amendments, see e.g., paragraph 0033 of the published application). Neither Carmody nor Witts is even aware of the problem solved by Applicant. Except for Applicant's teachings applied in hindsight, there is no modification to combine these references.

Moreover Witts is completely impractical for use at thousands of homeowner sites. As examples of impracticality for use at homeowner locations, Witts utilizes (1) a motorized time card input that moves the time card into the machine for writing using an impact printer where the printing cannot be interfered with, (2) a magnetic strip reader, (3) three time shift indicators for 24 hour plant operation, (4) three levels of overtime indicators, and (5) a panel that has numerous modes of operation as indicated by various status lights, and other features that are unnecessary, undesirable, and much too expensive for a simple homeowner wastewater treatment system as now specified by Claim 1 and previously specified by claim 49. It does not make common sense to look at the Witts industrial device when trying to provide thousands of homeowner wastewater treatment systems with an inexpensive detector for use where the service personnel are not present but a few times a year and then only for a relatively short time.

The particular problem of concern by Applicant does not involve large numbers of workers in three shifts, with different levels of overtime, wherein magnetic strips are used for some personnel and others require time cards which must be printed while the cards are completely inside the body of the Witts mechanism. Instead, Applicant's system monitors a multitude of wastewater treatment systems that are often remotely located and seldom visited, and where costs for the monitoring must be kept very small if the homeowners are going to be able to use Applicant's system. Thus, one of skill in the art would not look to devices such as Witts used

to track daily flows of personnel working multiple shifts. Accordingly, under *In re Oetiker*, Witts is nonanalogous art.

4. Applicant argued that the combination of Carmody and Witts is not obvious and that the Examiner improperly used hindsight in making the combination. The Examiner responded that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. However, as long as it takes into account only knowledge within the level of ordinary skill at the time of the invention, and does not include information from applicant's disclosure, the reconstruction is proper. The Examiner goes on to note that Witts was issued more than 18 years prior to applicant's invention so that it was well within the level of ordinary skill at the time of the invention. (page 25, last paragraph)

However, the Examiner has not taken into account the level of ordinary skill in the art. Specifically, the Examiner has not responded to Applicant's description of the long standing serious problem of sewage potentially getting into ground water, because experts including regulators could not practically monitor the multitude of wastewater treatment plants and determine whether service providers were actually performing the required maintenance. It is not clear why this longstanding very serious environmental and potentially dangerous problem has existed for decades if the solution was obvious all these years, as the Office Action states in retrospect. (See item II - Previous Arguments to which the Examiner has NOT yet responded).

Neither Witts nor Carmody recognize the problem solved by Applicants. The Office Action does not set forth any instruction in the prior art that would make it obvious for one of skill in the art to combine Witts and Carmody. Assuming arguendo that Witts even works, the

combination of Witts and Carmody would not solve the problem of inexpensively monitoring a multitude of physically separate locations. Carmody does not teach or require any telephone data lines to collect personnel information from the personnel detectors as required by the claims. Accordingly, the reconstruction in the Office Action can only be based on Applicant's disclosure. Therefore, the hindsight is improper by law. Applicant respectfully requests reconsideration.

5. **Applicant argued that Carmody does not teach a third party.** The Office Action states it is obvious to modify Carmody to include a third party because it "would advantageously enhance the reliability of the reports." The claims call for "sensors" to do this, which the Office Action admits Carmody does not have. Therefore, it is inaccurate for the Office Action to state that Carmody does have these features or capability as the Office Action presently states. The Office Action goes on to state that the Carmody system is "independent of information received from the plurality of wastewater systems." (page 23, last paragraphs - page 24 first paragraph). This is not true because the Carmody system relies on the statements of the service providers to determine whether services have been completed. Simply combining a third party would not supply any additional information and therefore cannot "advantageously enhance the reliability of the reports."

Applicant again points out that the only "monitoring" by Carmody is based on the reports from service providers and simple time reminders within Carmody. Carmody has no sensors to provide independent information. The only way a third party would provide any benefit is if the third party is able to monitor the systems independently of the service providers, as taught by Applicant. Witt does not teach a third party who monitors not only the employee but also the

employer to provide the information to another third party, i.e., a governmental regulatory agency. Instead, Witt discloses only a monitor for use by the employer and employee's benefit. Accordingly, there is no recognition of the problem solved by Applicant in either Carmody or Witt. Essentially, the Office Action states a third party is obvious, but provides no prior art that even includes all the elements to support this position. Moreover, the Office Action does not point to any teachings in the prior art that would lead one of skill in the art to utilize a third party.

6. **Applicant argued that Jurca is nonanalogous art.** The Office Action states that Jurca teaches an equipment monitoring system that is activated and deactivated at the start and end of a work shift using a mechanical switch. The Office Action again cites *In re Oetiker*, 977 F. 2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992) for support: (page 24, last paragraph)

It is respectfully submitted that *In re Oetiker* has been misunderstood. In the present case, *In re Oetiker* teaches that the Examiner must present evidence that shows that one of skill in the art of wastewater systems would be motivated to look at the field of vehicle usage recording systems to find a solution for the problem of service companies who do not send service personnel to thousands of remotely located wastewater treatment systems, even though they are paid to do so and claim that they have done so.

It has not been shown that a person of ordinary skill, seeking to solve a problem of fastening a hose clamp, would reasonably be expected or motivated to look to fasteners for garments. The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness.

Just as one of skill in the art of hose clamps would not be expected or motivated to look at garment fasteners, one of skill in the art would not be motivated to look at a system for recording

the handling characteristics of fork lifts as a way to solve the problem of service companies who do not send service personnel to great numbers of remotely located wastewater treatment systems.

Jurca is clearly nonanalogous art.

7. **Applicant argued that Kahleck is nonanalogous art.** According to the Office Action, Kahleck relates to monitoring of preventive maintenance of equipment. The Office Action again cites *In re Oetiker*, 977 F. 2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992) for support. (page 25, first paragraph)

Kahleck relates to an office machine management system for controlling printers and photocopy machines, and provides logs with number of copies produced, black and white copies produced, paper jams, and alarm signals. (See abstract). Kahleck sends a signal to say that a service contract should be renewed, but **Kahleck does not have the capability for determining whether it has been renewed or not.** Yet, this is exactly the problem presented. Not only does the Office Action fail to state a motivation for one of skill to look to the field of an office machine management system to solve a problem of dishonest service companies, the Office Action does not provide any teachings that describe the claimed function of "electronically determining of whether a respective contract between one or more owners of said plurality of wastewater systems and said one or more service companies has been timely renewed."

8. **Applicant argued that the Office Action's conclusion of obviousness is based on improper hindsight reasoning.** The Office Action states that Witts was issued more than 18 years prior to Applicant's invention and that Applicant's invention merely places a well known device in a specific environment. (page 25, last paragraph)

Neither Witts nor Carmody is aware of or teaches monitoring employers and their employees to provide information to regulators for determining whether service companies improperly collected money for services at thousands of different locations, when the services were not provided. Since the problem is not contemplated in the cited prior art, and no instructions are provided that would make it obvious for one of skill in the art to combine the prior art as proposed, Applicant respectfully believes that improper hindsight reasoning was necessarily used in making the rejection.

Moreover, if the components to solve the problem were known for 18 years, and if the solution was obvious, the Office Action does not explain why the long-standing egregious problem continued to exist during this same 18 year time period. Contrary to the Office Action's statements that the solution is obvious, experts in the field who attempted to solve the problem were not successful. *In re Oetiker* goes on to state:

Oetiker's invention is simple. **Simplicity is not inimical to patentability.** See *Goodyear Tire & Rubber Co. v. Ray-O-Vac Co.*, 321 U.S. 275, 279, 64 S.Ct. 593, 594, 88 L.Ed. 721 (1944) (simplicity of itself does not negate invention); *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1572, 1 USPQ2d 1593, 1600 (Fed.Cir.) (the patent system is not foreclosed to those who make simple inventions), cert. denied, 481 U.S. 1052, 107 S.Ct. 2187, 95 L.Ed.2d 843 (1987).

Applicant has provided a great deal of thought to make a system that is simple and reliable. Perhaps the Examiner is confusing obviousness with simplicity. In fact, perhaps the best inventions are those which are the simplest.

II. Previous Arguments by Applicant To Which the Examiner has NOT Yet Responded:

1. The Examiner has not considered the objective indicia of obviousness - the secondary considerations of the long felt, but unresolved needs and failed attempts to solve the problems. The U.S. Supreme Court and the U.S. Court of Appeals for the Federal Circuit have consistently ruled that such evidence must be considered:

Such "secondary considerations," when present, **must always be considered**. *Stratoflex*, 713 F.2d at 1538. See also *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1026-28, 226 USPQ 881, 887-88 (Fed.Cir.1985). Such evidence includes commercial success, long felt but unresolved needs, and failed attempts. *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 895-96, 221 USPQ 669, 675 (Fed.Cir.), cert. denied, --- U.S. ---, 105 S.Ct. 187, 83 L.Ed.2d 120 (1984).

In the present case, regulators have considered aerobic wastewater systems unusable for environmental reasons because they could not trust service personnel to perform the required maintenance at the remote locations, because it was impossible to know if the service had been performed. (See Applicant's Declaration as evidence.) People could not build on their own land due to the problem. The article "Aerobic Wastewater Treat," page 2, first paragraph, sent with the original preliminary amendment, confirms that aerobic treatment systems are not accepted in all areas due to "concern about improper operation and maintenance by homeowners." See also the previously sent article "Aerobic Residential Onsite Sewage Systems: An Evaluation of Treated-Effluent Quality," page 18, column 3, first paragraph wherein it will be appreciated that systems have been shown in rigorous testing to work but that maintenance must be provided for the system to work as intended.

It will also be noted from these same articles that the nonprofit organization NSF International has set the standards for aerobic units since 1973. Applicant's system recently

became the only wastewater treatment monitoring system licensed and used by NSF International due to the system's ability to economically verify that maintenance has been performed. With Applicant's invention, regulators can now do their job to protect the environment, and do it at such a very low cost that it is acceptable to require the public to use the system. In some cases, the use of Applicant's system has actually reduced homeowner maintenance costs because the number of required maintenance inspections has been reduced when Applicant's system is used. Moreover, regulators that for many years would not allow aerobic treatment systems are now reconsidering their stance simply because of Applicant's system. Previously regulators could not verify whether proper maintenance had been performed and therefore could not protect environmental health. As discussed in the background to the application, experts have tried for years to solve the problem, but have failed.

Under M.P.E.P. 2141.01, Scope and Content of the Prior art, Section III entitled "Content of the Prior Art Is Determined at the Time the Invention Was Made to Avoid Hindsight", the Examiner is required to ascertain the state of the prior art prior to the invention. Moreover, the law is clear that non-obviousness of a solution is strongly evidenced when experts in the art have tried and failed to solve long standing problems.

In the present case, for well over a decade prior to the present invention, regulators have been highly suspicious and/or aware of routine deceit by services companies whereby money paid by wastewater system owners for routine scheduled inspections is simply pocketed, and no routine inspections are made. In at least one state, the regulators went so far as to prevent use of certain types of wastewater systems - not because the systems do not work properly as long as routine inspections are made, but because the regulators simply do not trust the safety of the environment

to the dishonesty and unreliability of service companies. In many cases, this meant that people could not even build on their own land. This is clearly a significant, long-standing problem.

History shows there is evidence of a strong precedent for service companies to falsify routine inspection reports because it provides a quick, easy way to earn inspection money without paying the transportation and manpower costs of sending a service representative to each location. Honest service companies find it difficult to compete in this business environment and may be driven out of business in states where a high percentage of routine inspections are not made and/or are falsified. Carmody and Witt do not recognize this problem and do not provide a practical solution thereto. Applicant's system is the first to provide a solution that successfully works.

This is the scope and content of the prior art as set out by the previously submitted Declaration of Jerry L. McKinney, the present inventor. The Examiner has not questioned any of the above, or even commented, and because the Examiner is required to look at such secondary considerations, Applicant believes that the Examiner concedes agreement with the above assessment of the prior art, and with the assertions of the previously submitted McKinney Declaration.

Given the longstanding and serious nature of the problem as set forth in the McKinney declaration, and the previous attempts to solve the problem, it is clear that a workable solution was not obvious to those of skill in the art. Accordingly, the rejection to claims based on obviousness is inconsistent with the reality of the situation and experience of experts in the field. Therefore, Applicant respectfully submits that the rejection of the claims based on obviousness is traversed.

2. Applicant previously pointed out that Kahleck does not detect whether a service contract has been renewed or not. Thus, Kahleck cannot anticipate the claims which require this feature. The Examiner did not respond to this argument.

III. New arguments

1 The Office Action states that Jurca teaches a mechanical switch just as Applicant calls for in claim 8.

Unlike Applicant's mechanical switch, Jurca's mechanical switch turns the entire system on and off. Applicant's system has nothing to do with an on-off switch for the entire system. An on-off switch for use in Applicant's system would be impractical because Applicant's system must monitor continuously. It is impermissible to pick and choose from a reference only so much as supports a desired conclusion to the exclusion of other parts of the reference:

It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art. *In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965); see also *In re Mercer*, 515 F.2d 1161, 1165-66, 185 USPQ 774, 778 (CCPA 1975).

Accordingly, the Jurca switch is entirely unsuitable for use as described in Applicant's claim 8 and would, in fact, prevent operation of Applicant's system except when the service personnel is present.

Summary:

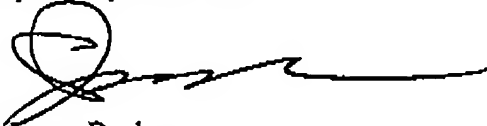
The state of the art at the time of the invention indicates a long standing problem which had not been solved prior to Applicant - facts that support Applicant's invention were not obvious to one of skill in the art at the time of the invention.

Carmody is essentially a paperwork handling system with reminders which can only assume that all paperwork prepared by a service company is accurate. Witts does not perform the claimed function of reporting to parties other than an employer. Moreover, Witts is an extremely expensive and highly impractical system for use in thousands of homeowner sites which include not only mansions, but also trailer houses. Witts is for use by employers to track the time of employees at a single plant and for employees to know the status of their time. Witts provides no teachings to monitor the employer, i.e., the service companies, and report to third parties whether the service companies sent their employees to many different locations. Neither Carmody nor Witts even recognize the problem to be solved. Accordingly, there was no motivation at the time of the invention to combine Carmody with Witts.

It is respectfully submitted that the unrelated patents of Carmody, Witts, Jurca, and Kahleck are deficient and do not show, even in combination, the claim limitations of claims 1-88. Moreover, no motivation has been shown to look to the different fields of Witts, Jurca, or Kahleck to solve the problem of dishonest service companies who have contracts to perform services at wastewater treatment systems. Therefore, these references are nonanalogous.

For any of the above-listed reasons, it is respectfully submitted that the rejections to claims 1-88 are respectfully traversed and that claims 1-88 are now allowable. Accordingly, Applicant respectfully proposes that the application now stands in condition for allowance and earnestly requests that a Notice of Allowance be issued forthwith.

Respectfully submitted,




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Cathy Hayes